JUNCIIN- FR

# HIS 9 NEVADA CLIMATE SUMMARY

# Office of the

State Climatologist

OCTOBER 1990 Evan VOLUME LADraNUMBER 9/6

Offices: 226 and 322 Mackay Science (702) 784-1723

.....

John W. James
State Climatologist
Mackay Science Hall
University of Nevada-Reno
Reno, NV 89557

SYNOPSIS

**Documents Section** 

NOV 2 0 1990

For the eighth straight month temperatures averaged above normal over most of the Silver State. In fact, about 3/4 of the months in the past three years have had a similar fate. Add to this, lack of precipitation and unusually high evaporation during the same period and the water shortage is critical in much of Nevada. Nothing happened in October to change all this, as warm temperatures combined with well below normal precipitation in all but the east central region of the State.

## **TEMPERATURES**

Except for small portions of the Upper and Lower Humboldt River Valley, temperatures averaged above normal again this month. Western Nevada repeated as the warmest compared to normal, with Reno, Carson City, Minden, and the adjacent Sierra Nevada over four degrees warmer than usual. Most of the State recorded temperatures that averaged in the O to +2 degrees category above normal.

Even with the warm temperatures extreme highs did not approach the State record high of 109 degrees recorded at Cottonwood Cove on October 1, 1980. This month that same location reached only 99 on the 5th, followed by 98 degrees at Callville Bay, and Mike Ronda's reading of 97 degrees at Overton Beach. Similarly, Mountain City's 10 degree below zero State record of October 27, 1970 was not threatened, as Pine Valley Bailey reached only 3 degrees, Mountain City 5 degrees and San Jancinto 6 degrees. At the Chimney Creek Goldfield station north of Golconda, Harmon Ranney recorded a one degree below zero wind chill temperature on both the 5th and 6th at that 5145 foot site.

Some "strange things were happening" this month in the diurnal temperature range category, as several locations experienced a 60 degree plus temperature rise from daylight to early afternoon. For example, Mountain City went from 5 to 67 degrees on the 9th (62 degree range), Vya from 12 to 76 on the 8th (64 degree range), and Pine Valley 20-85 on the 10th (65 degree range), and 11 to 80 on the 28th for a 69 degree warming in only seven hours, from 6:30 am to 1:30 pm! All this of course with no airmass change—just clear skies, dry air, and a calm wind that creates an intense early morning inversion followed by rapid daytime heating. The Nevada record for this "overcoat to shirt sleeve weather," is still held by Deeth with a 12 to 87, 75 degree rise on September 21, 1954!

Lake Mead water temperatures took the usual "Fall fall" as swimmers experienced 77 degrees early in the month, but only 70 degrees at the end.



#### PRECIPITATION

Only the East Central portion of the State had above normal amounts of precipitation with Sunnyside (1.60"), Great Basin National Park (1.52"), and Shoshone (1.40") the wettest. At the other end of the scale, many places had no precipitation, (e.g., Goldfield, Wadsworth, Belmont, Rye Patch, Desert National Wildlife Refuge, and Beowawe Gund Ranch). Along the drought plagued East Slope Sierra Nevada Watersheds where about 6% of the Water Year total normally occurs in October, less than 1% fell! Is this the beginning of the 5th year of a drought that is looking more and more like a repeat of the Dust Bowl 1930's edition? Stay tuned.

Snowfall was back in the news as Great Basin National Park Headquarters at 6800 feet recorded 6.5", with over 1 foot at the 10,000 foot level, 4" at nearby Spring Valley Eldridge, 2.5" at also nearby Shoshone and McGill, and 2" at Ruth.

### SUNSHINE, WIND AND EVAPORATION

During this mild, dry month sunshine hours were above normal over all except Western Nevada. In the South, Las Vegas had 93% of the possible hours versus a normal of only 86%, while in the North and East sunshine was equally in abundance (e.g. Winnemucca 91% vs. a normal of only 74%, and Ely 83%, with a 75% normal). In the West, Reno slipped a tad, with only 78% of the possible hours compared to a usual 84%.

Wind speeds averaged above normal Statewide, pushing those alternative energy source wind machines around more than usual for October. This was especially true in the Northeast and West. Peak wind gusts at mountaintop locations reached over 70 mph, but the Northwest Reno automatic weather recorder site of Jim Ashby was probably the highest in the "lowland areas", with 50-60 mph gusts on the 18th.

Evaporation was again well above normal in the Southern half of the State, where Boulder City had 8.46" (7.25" normal), Logandale 6.51", and Silverpeak 7.66". In the North pan evporation rates were near or a little below normal, with 3.80" at Fallon (norm = 5.15"), Reno-UNR 6.00", Rye Patch 3.40" (norm = 3.88"), Honey Lake Fleming 3.10" (norm = 4.50"), and Ruby Lake 3.90" (norm = 4.58").

NOTE: What are Nevada's temperature extremes for November? Highest 98 degrees, Nov. 3, 1944 at Mesquite Lowest -23 degrees, Nov. 27, 1896 at Wells

> John W. James State Climatologist



